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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,663	02/09/2004	Pim van Meurs	TEGI0015	1467
22862	7590	10/29/2004	EXAMINER	
GLENN PATENT GROUP 3475 EDISON WAY, SUITE L MENLO PARK, CA 94025			NAKHJAVAN, SHERVIN K	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/775,663	Applicant(s) MEURS, PIM VAN	
	Examiner Shervin Nakhjavan	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 16, 20-30 and 36-46 is/are rejected.
- 7) ☒ Claim(s) 14, 15, 17-19, 31-35 and 47-51 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2-9-04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13, 16, 20-30 and 36-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over WU et al. (US 20030006956) in view of Wang et al. (US 5,926,566).

Regarding claim 1, WU teaches an apparatus for text entry comprising: a joystick member user input device having at least P number of motions, each of which is associated with a signal representing one of P predefined stroke categories (Paragraph 47, wherein the joystick is in motion moving through the contact points 110-113, each movement to either or combination of the points in a horizontal plane would be considered as one of P number of motions as discussed with regards to input device 12 of figure 1 in paragraph 24 and further followed in paragraph 28 with reference to 6 fundamental strokes generated by thumb movement which in our case would be with Joystick movements since the same results would be achieved as the thumb movements discussed in Paragraph 49, Line 5 through Paragraph 50, Line 2, in addition earlier in the reference, in Paragraph 3, the number of stroke types of 26 followed by their further categorization into 5 to 9 stroke categories are identified which WU refers through the rest of the reference as strokes only); processor coupled to said joystick member (Paragraph 51, Lines 10-16, processor 11 is the processor); at least

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one memory coupled to said processor (Figure 1, Item 15), said at least one memory containing at least one database (Paragraph 23, wherein tables 25 and 26 are the database of characters) and at least one program (Figure 1, Item 14 is the program memory) used by said processor to process data, said at least one database comprising a number of characters and data of stroke order necessary for each of the characters as well as data of use frequency associated with each of the characters (Paragraph 23, wherein the tables 25 and 26 hold character data and the corresponding strokes or input data of input device 12 to be translated to character data) said stroke order based on said predefined stroke categories (Paragraph 24, where input device generates sequence of inputs of predetermined category as discussed above with respect to joystick operation), and an output member coupled to said processor, said output member comprising a text display area and a selection list display area (Paragraph 25, wherein the output device is the display 13 for displaying likely candidates of characters as a selection list); wherein said at least one program causes said processor to: identify a stroke input signal representative of one of said stroke categories, said stroke input signal being associated with a predefined motion of said joystick member (Paragraph 47, Line 14 through Paragraph 49 teaching the same utility of identifying the strokes of characters of input device 12 of figure 1 is applicable equally to the joystick signal input capability), display a first selection list when a first stroke is identified, said first selection list comprising first Q number of most frequently used characters that start with said first stroke (Paragraph 32, Lines 6-10, wherein the displaying of Q number of characters are in order of frequency of use); if the user

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chooses to enter any character from said first selection list, display said chosen character in said text display area; otherwise, display a second selection list when a second stroke is identified, said second selection list comprising first Q number of most frequently used characters that start with said first stroke followed by said second stroke; if the user chooses to enter any character from said second selection list, display said chosen character in said text display area; otherwise, display a third selection list when a third stroke is identified, said third selection list comprising first Q number of most frequently used characters that start with said first stroke followed by said second stroke and then followed by said third stroke; if the user chooses to enter any character in said third selection list, display said chosen character in said text display area; otherwise, continue to display a next selection list corresponding to a next stroke added until the user chooses to enter any character from said next selection list; and repeat the process for entering a next character (Paragraph 30, wherein upon entering of the strokes the translation followed by tabular look-up or a search starts for displaying a selection of characters to the user, in addition two stage translation is suggested to reduce the table size of possible combinations however, Wang et al. teaches displaying a list of candidate or hypothesis to the user upon stroke input by the user and if no candidate selected, continue inputting of further strokes and updating the displayed list to the user, until a candidate or hypothesis is selected, Column 3, Lines 24-38). Therefore, It would have been obvious to an ordinary skilled person in the art to modify the replace the Wang's pen or stylus with WU's joystick because, pen or stylus system of Wang requires a tablet of significant area and generally require a special

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stylus and the tablet area does not permit use of the method on very small devices such as small mobile telephones, in addition the stylus is an inconvenient additional element, as it can be lost, it also requires two-handed operation, one hand to hold the device and the other hand to operate the stylus while, WU's combined processor and joystick resolves the above problems.

WU teaches limitation of claim 2, said P number is five (Paragraph 49, Line 5 through Paragraph 50, Line 2, same motion capability of input device 12 is applicable to the joystick wherein the motions of input device 12 included 6 motions or equivalent strokes, Paragraph 26);

WU teaches limitation of claim 3, said five predefined stroke categories are horizontal stroke, vertical stroke, left falling stroke, right falling stroke, and any stroke other than the first four categories (Paragraph 26, Lines 1-3);

WU teaches limitation of claim 4, said Q number is ten (Paragraph 25, Lines 6-8, wherein several character candidates are displayed in the selection list);

WU teaches limitation of claim 5, said joystick member comprises at least one motion representing a signal for selecting a character from any of said selection list (Continuation of table 1 after paragraph 35, No. 11 and 12 are the specified motions by thumb movement for toggling the list and selection of the candid character, respectively, as discussed in paragraph 35 which applies to joystick motion utility as well, as discussed above);

WU teaches limitation of claim 6, said joystick member comprises at least one

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motion representing a signal for entering a chosen character into said text display area (Continuation of table 1 after paragraph 35, No. 10 is the specified motion by thumb movement for toggling the list or entering of the candid character as discussed in paragraph 35 which applies to joystick motion utility as well, as discussed above);

WU teaches limitation of claim 7, said joystick member comprises at least one motion, representing a signal for deleting a character entered (Continuation of table 1 after paragraph 35, No. 1 is the specified motion by thumb movement for deleting of the candid character as discussed in paragraph 35 which applies to joystick motion utility as well, as discussed above);

WU teaches limitation of claim 8, said joystick member enables the user to define at least one or more motion representing a task executable by said processor (Table 1 represents all the motions by user's thumb and tasks performed by the processor in response to the motion wherein the capability in whole applies to motion by joystick as well, as discussed above with respect to joystick equivalent capability to input device 12 of figure 1);

WU teaches limitation of claim 9, said joystick member is an isometric joystick (Paragraph 47, Lines 7-11, the joystick having springs supporting equally from four directions, for it to go into it's resting middle position when not under use of a user, is an isometric joystick);

WU teaches limitation of claim 10, said at least one program further causes said processor to: move a visual cue over a desired character in any of said selection list for selecting the desired character in response to a signal representing the user's action to

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select the desired character, said action to select being either a button pressing or a predefined motion of said joystick member, and put the selected character in said text display area in response to a signal representing the user's action to enter the selected character, said action to enter being either a button pressing or a predefined motion of said joystick member (Continuation of table 1 after paragraph 35 teaches the programming of the system, No. 11 and 12 are the specified motion by thumb for selecting and entering or confirming of a candid character as discussed in paragraph 35 which applies to joystick motion utility as well, as discussed above);

WU teaches limitation of claim 11, said visual cue is a bitmap in any shape and in any size not larger than the space of a character displayed in said selection list display area (Continuation of table 1 teaches the motions No. 15-18 for scrolling which inherently includes a visual cue for the user for selection of a predetermined shape and size);

Wang teaches limitation of claim 12, said at least one program further causes said processor to: automatically select the first character in any of said selection list (Column 11, Lines 31-36);

Wang teaches limitation of claim 13, said at least one program further causes said processor: to display a default selection list before any stroke input signal is identified or after a punctuation mark or a character is entered, said default selection list comprising the first R number of most frequently used characters (Column 11, Lines 10-12, wherein the Common Chinese characters are displayed before stroke input signal);

Wang teaches limitation of claim 16, said R number is ten (Column 11, Lines 8-15, wherein the default selection list before any stroke displays common radicals as most frequently used characters such as period or a comma);

WU in view of Wang also teach the method claims 20-30 corresponding to apparatus claims 1-13 above in view of the teaching of function of the apparatus claims;

WU in view of Wang also teach the computer instructions claims 36-46 corresponding to apparatus claims 1-13 (Paragraph 24, Lines 7-8 In WU and Column 5, Lines 64-65 in Wang).

While Wu fails to specifically teach five predetermined stroke categories of claims 20 and 36, exact directions of the strokes of claims 3, 21 and 37 and the number of characters in the selection list being ten of claims 4, 16, 20 and 36, WU clearly teach the number of predetermined stroke category is being six and their corresponding directions (Paragraph 28). In addition WU teaches the characters being displayed in a selection list could be several in the order of frequency usage for example (Paragraph 25, Lines 6-11). Absent some showing of criticality or unexpected results, the exact number of stroke motions, the directions of motion and the number of characters displayed in a selection list is believed to be within the skill level of the ordinary practitioner in this art, who would find it obvious to choose the most appropriate stroke motion numbers, stroke motion directions and the number of characters being displayed in the selection list, for a given application.

Regarding claims 12, 29 and 45, since users attention to the displayed list of

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character candidates and their selection is one of the WU's concerns with respect to limiting complication for the user in selection routine (Paragraph 6), it would have been obvious to an ordinary skilled in the art to utilize Wang's automatic selection candidate by the system because, it would allow users to write characters in a continuous stream, without having to stop and select candidates (Column 11, Lines 35-37).

Regarding claims 13, 30 and 46, again based on reducing complications for the users of WU's system with respect to looking at the displayed list of characters and selecting candidates by the user, it would have been obvious to an ordinary skilled person in this art to utilize Wang's method of displaying a default selection of characters in the beginning before any stroke inputs, in order to minimize users actions of inputting a first stroke, by just selecting a character in the beginning to save time (Column 11, Lines 14-17).

Allowable Subject Matter

3. Claims 14, 15, 17-19, 31-35, and 47-51 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record specifically WU et al. in view of Wang et al. does not teach displaying a default selection list in a sequence which is base on frequency of each character in said default selection list being used as the first character of a *sentence or half sentence* of claims 14, 31 and 47; after a character is entered, program causing said processor to execute steps of claims 15, 32 and 48; the steps of: before any stroke signal identified, after a

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character is entered, using frequency of each character in the second default list and contextual association value, of claims 17, 33 and 49; combined program steps of said processor, of claims 18, 34 and 50 and concurrent displaying of an stroke as it is inputted with a numeric or iconic representation and concurrently displaying a numeric or iconic representation of characters of claims 19, 35 and 51, combined with other features and elements of all of the claims discussed above.

Other prior art cited

4. Prior art of record cited and not relied upon is considered pertinent to applicant's disclosure.

The US Patent Application 20030184451; US Patent 5,933,526; US Patent 5,649,223; US Patent 5,457,454 and US Patent 5,187,480 teach user's input stroke recognition related to applicant's invention as claimed.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shervin Nakhjavan whose telephone number is (703) 306-5916. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, DC 20231

Or faxed to:

(703) 872-9306 for ***formal*** communications, please mark "**EXPEDITED
PROCEDURE**"

or:

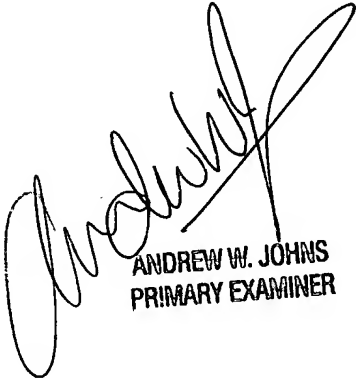
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for *informal* or *draft* communications; please label "**PROPOSED**" or "**DRAFT**".

Hand delivered responses should be brought to Crystal Park 2, 2121 Crystal drive, Arlington, VA, sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Tech center 2700 customer service office **(703) 306-0377**.

Shervin Nakhjavan *S.N*
Patent Examiner
Group Art Unit 2621
October 19, 2004.



ANDREW W. JOHNS
PRIMARY EXAMINER